Remarks

This is a complete response to the Office Action mailed October 19, 2005. The amendments and remarks are proper, do not add new matter, more particularly point out and distinctly claim that which is the patentable subject matter, and explain why all claims are in condition for allowance but otherwise not in condition for appeal.

Plainly put, the Office Action of 10/19/2005 is replete with incorrect premises and erroneous conclusions, and evidences a failure by the Examiner in fulfilling his obligations for completeness in considering patentability of the invention as claimed. 37 CFR 1.104(a)

First, this case is not in condition for appeal due to the unresolved issue that the final rejection is clearly not proper and without basis because the Examiner's assertion is clearly erroneous that the claim terms "external fluid stream" and "internal fluid stream" are undefined by the written description and thereby not enabled. Before preparing an appeal brief, Applicant is entitled to an objective review of the factual deficiencies of this rejection.

Furthermore, this case is not in condition for appeal due to the unresolved issue that the final rejection is clearly not proper and without basis because the Examiner has failed to cite a reference that identically discloses all the recited features of claim 20, thereby failing to substantiate a prima facie case of anticipation. Instead of responding to Applicant's previous rebuttal of this rejection, the Examiner now erroneously asserts that Applicant made no substantive rebuttal. Before preparing an appeal brief, Applicant is entitled to know the Examiner's basis for maintaining the final rejection in view of Applicant's earlier factual rebuttal.

Objection Under 37 CFR 1.71(a)-(c)

The specification was objected to because the claim terms "external fluid stream," "internal fluid stream," and "discrete component" are allegedly not defined in the specification. This objection is respectfully traversed.

Applicant believes that the objection is erroneous because a skilled artisan readily understands that "discrete components" means "separate or distinct components," such as is shown by the filter apparatus 136 component of FIG. 8 that is attached to and cooperates with the base deck 102 component in the data storage device 100 in FIG. 1. Nevertheless, solely in order to reduce the number of issues for consideration on appeal Applicant has canceled claim 21 without prejudice.

The claim terms "external" and "internal" are clearly defined in the specification in relation to the meaning of the claimed subject matter. For example, FIG. 1 and the description thereof disclose the data storage device 100 having "a base deck 102 cooperating with a top cover 104 (shown in partial cutaway) to form a sealed housing (also referred to as a confined environment)...referred to herein as a head-disc assembly 106." (specification para. [0022], emphasis added) The terms "confined" and "internal" are used interchangeably throughout the specification. (see, for example, specification para. [0011]; para. [0047]).

The skilled artisan readily recognizes that the present embodiments as claimed contemplates filtering internal contaminants (contaminants in the confined environment) for the benefit of the head disc assembly. (see, for example, specification para. [0001]; para. [0003]) The source of the contaminants can be from within the internal environment, such as out-gassing of volatiles, or the source of the contaminants can be from the

environment external to the drive, such as where the data storage device is used in a harsh chemical environment. (see, for example, specification para. [0004]) These terms "internal" (or "confined") and "external" are used in the specification and in this context on thirty-one and fourteen occasions, respectively; clearly there is no doubt as to the meaning of the claim terms "internal" and "external."

The "internal fluid stream" of the claimed subject matter *guiding a portion of an internal fluid stream within an enclosure through a recirculating filter* is explicitly defined as being the air stream 176 that originates from the internal (or confined) environment; for example:

> As the disc 110 (of FIG. 1) rotates, air flows from the inner diameter to the outer diameter of the disc 110. A portion of the air flow generated by rotation of the disc 110 enters the re-circulating filter channel 158 and continues until the air flow impacts the re-circulating filter 138. Particles supported by the air flow are removed from the air flow by the re-circulating filter 138...FIG. 8 shows the top view of the relationship between the impact filter medium 174 and the surface filter medium 172, as well as the direction of air flow of an air stream 176 as the air stream 176 progresses through the re-circulating filter 138 of the filter apparatus 136.
> (specification para. [0038-0042], emphasis added)

Likewise, the "external fluid stream" of the claimed subject matter *filtering an external fluid stream through a diffusion path* is explicitly defined as being the flow that originates from the external environment; for example:

> A breather aperture 140, shown through a partial cut-away of the filter apparatus 136, is provided in the base deck 102 to exchange air between the environment external to the head-disc assembly 106 to the confined environment within the head-disc assembly 106...FIG. 3 shows a breather diffusion path 154 formed therein formed in the base 150. In a preferred embodiment of the DSD 100, the breather diffusion path 154 communicates with a diffusion aperture

156 at a proximal end of the breather diffusion path 154 and the breather aperture 140 (of FIG. 1) at a distal end of the breather diffusion path 154. Collectively, the breather aperture 140, the breather diffusion path 154 and the diffusion aperture 156 permit passage between the environment external to the head-disc assembly 106 (of FIG. 1) and the environment confined within the head-disc assembly 106.
(specification para. [0026-0030], emphasis added)

As will be discussed in greater detail below, a breather filter (not shown) is interposed across the passage between the environment external to the head-disc assembly 106 and the environment confined within the head-disc assembly 106. The breather filter may be positioned in any convenient location along the passage to primarily prevent ingress of particulate contaminants from the external environment...FIG. 5 shows a breather filter 170 adjacent the breather aperture 1450 and supported by the base deck 102. The breather filter 170 filters particle and aerosol contaminants from an air stream migrating through the breather diffusion path 154 (of FIG. 3).
(specification para. [0033-0037], emphasis added)

An airflow passing through the diffusion aperture 156 (of FIG. 10) from the external environment to the internal environment of the head-disc assembly 106 (of FIG. 1) first encounters the absorption filter 178, which absorbs corrosive gases and organic vapors present in the airflow. Particulates present in the airflow, not bound up in the absorption filter 178, are extracted from the airflow by the breather filter 170. It is noted that, although the breather filter 170 is not in direct communication with the diffusion aperture 156, the breather filter 170 remains a breather filter. As shown by FIG 11, the breather filter 170 is conveniently interposed across the airflow between the environment external to the head-disc assembly 106 and the environment confined within the head-disc assembly 106 (i.e., the airflow passing through the diffusion aperture 156 (of FIG. 10) from the external environment to the internal environment of the head-disc assembly 106 and subsequently through the absorption filter 178,) to primarily prevent ingress of particulate contaminants from the external environment from contaminating the internal environment of the head-disc assembly 106.
(specification para. [0046-0047], emphasis added)

This is just a sample, not an exhaustive listing, of the explicit definitions of the internal and external flows that are filtered by the embodiments of the present invention as claimed. The skilled artisan, having read the specification, would readily understand the *internal fluid stream* as being the portion of the outwardly spiraling flow generated by the spinning discs that passes through the recirculating filter. The skilled artisan would also readily understand the *external fluid stream* as being the flow passing through the breather diffusion path from the external environment into the internal environment of the data storage device enclosure.

Also, given the explicit meaning of *external fluid stream* being associated with contaminants flowing from the external environment through the diffusion path, that claim term gives contextual meaning to *internal fluid stream* being associated with the stream passing through the recirculation filter but which did not previously pass through the diffusion path.

Applicant regrets that the Examiner chose not to grant the telephone interview that was previously requested. (see Applicant's Amendment filed 8/8/2005 pg. 18) It now appears that Applicant's prediction proved correct that verbal communications would be necessary for the Examiner to fully appreciate the claim amendments. Applicant can only conclude, given the factual support for the claim term definitions in the specification, that the Examiner's objection is erroneous as a matter of law. Reconsideration and withdrawal of the objection are respectfully requested.

Rejection Under 35 USC 112 Paragraph 1

Claims 1-13 and 21-27 were rejected as not being enabled by the specification. This rejection is respectfully traversed.

The correct standard for applying the enablement requirement is that the specification must teach those skilled in the art how to make and use the claimed invention without undue experimentation. *In re Wright*, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993). For reasons detailed above, the skilled artisan would readily understand the *internal fluid stream* as being the portion of the outwardly spiraling flow generated by the spinning discs that passes through the recirculating filter, and would also readily understand the *external fluid stream* as being the flow passing through the breather diffusion path from the external environment into the internal environment of the data storage device enclosure. The Examiner's basis for non-enablement is the alleged lack of definition for these claim terms. (Office Action of 10/19/2005, pg. 3) Accordingly, the Applicant traverses the present rejection, for reasons detailed above, because the specification clearly enables a skilled artisan to make and use the invention as claimed without undue experimentation. Reconsideration and withdrawal of the present rejection of claims 1 and 22 and the claims depending therefrom are respectfully requested.

Rejection Under 35 USC 102(e)

Claim 20 was again rejected as being anticipated by Tuma '498. Applicant reiterates its previous traversal of this rejection. (see Applicant's Response of 8/8/2005, ppg. 15-16)

In maintaining the anticipatory rejection the Examiner stated the following:

> While applicant's arguments pursuant to In re Donaldson are germane, applicant has neither set for arguments that the means is not a mere obvious mode of "filtering" and /or claim limitations that would support the contention that the instantly claim "filtering means" differentiate over know and therefore obvious means of filtering.
> (Office Action of 10/19/2005, pg. 4)

First, Applicant reiterates, in order to clarify, that in order to substantiate an anticipatory rejection of this means-plus-function claim the Examiner is obliged as a matter of law to construe this means element as the disclosed structure, and equivalents thereof, that are capable of the identical recited function. (see Applicant's Response of 8/8/2005, pg. 15) In view of this standard, it is unclear what the Examiner means by "obvious mode of filtering" and "differentiate over know [sic] and therefore obvious means of filtering." (Office Action of 10/19/2005 pg. 4)

Contrary to the Examiner's comments, Applicant actually did previously set forth express arguments as to why a proper claim construction for claim 20 would not read on Tuma '498:

> As discussed above, the present embodiments disclose structure that contemplates placing the filter chamber filtering the external fluid stream within the internal fluid stream. Contrarily, Tuma '498 isolates the filter chamber from the internal fluid stream, requiring a relatively more complicated and larger structure to impart a negative pressure from the internal fluid stream to the filter chamber. Also as discussed, the structure of the present embodiments provides a two-stage filtering of the internal fluid stream, as opposed to the single-stage filtering of Tuma '498. Clearly, the structures of the present embodiments and Tuma '498 operate in different ways, and are thus not structural equivalents, making Tuma '498 beyond the contemplated scope claim 20. When this means element is properly construed, it is clear that Tuma '498, taken as a whole, fails to disclose any equivalent structure in relation to the embodiments of the present invention as claimed. Reconsideration and withdrawal of the present

> rejection of claim 20 and the claims depending therefrom are respectfully requested.
> (Applicant's Response of 8/8/2005, pg. 16, emphasis added)

Reiterating, the disclosed structure of the present embodiments places the filter chamber within the internal fluid stream immediately downstream of the recirculating filter. This structural arrangement makes possible the smaller footprint and dual-stage filtering of the present embodiments in comparison to Tuma '498. Accordingly, the structure of Tuma '498 is not equivalent in accordance with a proper means-plus-function claim construction under Section 112 paragraph 6.

Accordingly, Applicant reiterates that Tuma '498 cannot substantiate a Section 102 rejection for failure to identically disclose all the features of the present embodiments as claimed in claim 20. Furthermore, this case is not in condition for appeal due to the unresolved issue that the final rejection is clearly not proper and without basis because the Examiner has failed to cite a reference that identically discloses all the recited features of claim 20, thereby failing to substantiate a prima facie case of anticipation. Reconsideration and withdrawal of the rejection of claim 20 and the claims depending therefrom are respectfully requested.

References Cited But Not Applied

The Applicant believes the pending claims are allowable over all the art of record. Particularly in view of paragraph 5 of the Office Action of 10/19/2005, Applicant reiterates that none of the references of record discloses or suggests placing the filter chamber for the diffusion filter within the recirculating fluid stream. (see Applicant's Response of 8/8/2005, pg. 17)

Conclusion

This is a complete response to the Office Action mailed October 19, 2005.

Applicant has also filed herewith a Request for Telephone Interview to be held before the Examiner makes the next action on the merits. The interview is necessary to settle the unresolved issues currently making this case not in condition for appeal, aiming to preclude the need otherwise for a Pre-Appeal Brief Panel Review.

Should any questions arise concerning this response, the Examiner is encouraged to contact the below listed Attorneys.

Respectfully submitted,

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